

**PRODUCT SPECIFICATION: SPE. 0011**

Section 1 – GENERAL													
<b>Product Name:</b>	Tiger Zinc®												
<b>Description:</b>	Tiger Zinc® is a high analysis granular degradable sulphur product that can be used both as a source of plant nutrient sulphur, zinc and / or as a soil amendment for correction of problem alkali soils. Yearly applications of Tiger Zinc® will improve soil sulphur levels as well as loss associated with nutrients that are soluble. Tiger Zinc® is a unique, high analysis sulphur fertilizer that delivers agronomically and economically, and provides excellent handling characteristics.												
<b>Physical Properties:</b>	<p>Colour Light brown pastilles</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">Fertilizer Prill Size</td> <td style="text-align: right;">260 SGN</td> </tr> <tr> <td>Angle of Repose</td> <td style="text-align: right;">29 Degrees</td> </tr> <tr> <td>Breakage Test (% Fines Produced)</td> <td style="text-align: right;">&lt;0.5%</td> </tr> <tr> <td>Specific Gravity</td> <td style="text-align: right;">5.6 g/ml</td> </tr> <tr> <td>Package Sizing</td> <td style="text-align: right;">25 kg bag</td> </tr> <tr> <td>or 1000 kg bulk bag</td> <td></td> </tr> </table>	Fertilizer Prill Size	260 SGN	Angle of Repose	29 Degrees	Breakage Test (% Fines Produced)	<0.5%	Specific Gravity	5.6 g/ml	Package Sizing	25 kg bag	or 1000 kg bulk bag	
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<b>Toxicity:</b>	Sulphur is moderately toxic (Rating 3 according to "Clinical Toxicology of Commercial Products") with a probable lethal dose to humans of 0.5 to 5 g/kg body mass.												
<b>Hazards:</b>	The material may burn when exposed to heat and flames, emitting toxic fumes of oxides of sulphur. The dust presents a dangerous explosion hazard if suspended in the atmosphere. May cause severe eye irritation as well as irritation to the skin and respiratory tract.												
<b>Special Precautions:</b>	Store away from heat, naked flames and oxidising agents such as ammonium nitrate.												

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	Maintain stringent dust control procedures to prevent concentrated flammable dusts from reaching a spark or flame source. Avoid extensive use of augers due to fracturing of the product.																		
<b>Statutory Aspects:</b>	Occupational Health and Safety Act, No 85 of 1993. Not regulated as hazardous material  <b>Maximum Levels of Potentially Harmful Elements (according to act 36 of 1947)</b>  <table border="1"> <thead> <tr> <th>Element</th> <th>Mg/kg</th> </tr> </thead> <tbody> <tr> <td>Cadmium</td> <td>20</td> </tr> <tr> <td>Chromium</td> <td>1750</td> </tr> <tr> <td>Copper</td> <td>750</td> </tr> <tr> <td>Mercury</td> <td>10</td> </tr> <tr> <td>Nickel</td> <td>200</td> </tr> <tr> <td>Lead</td> <td>400</td> </tr> <tr> <td>Arsenic</td> <td>20</td> </tr> <tr> <td>Selenium</td> <td>15</td> </tr> </tbody> </table>	Element	Mg/kg	Cadmium	20	Chromium	1750	Copper	750	Mercury	10	Nickel	200	Lead	400	Arsenic	20	Selenium	15
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#### Section 2 – SPECIFICATION

<b>Appearance</b>	Light brown pastilles
<b>Mean Particle Size</b>	2.4 – 3.2 mm
<b>Uniformity Index</b>	Not less than 50%
<b>Micronutrient content Zinc</b>	18 % ± 0.9 %

#### Section 3 – PLANT EVALAUTION AND USES

The nutrient zinc oxide are weighed and fed into a mix tank. In the mix tank the solid particles are mixed with molten sulphur at predetermined recipes.

#### Section 4 – PURCHASING AND SUPPLIER SPECIFICATION

The material is available in 1000kg and 25kg bags conforming to the most recent issue of Chemical Initiatives Packaging Specification No. RMS.PAK0022 and

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RMS.PAK0023 respectively.

### Section 5 – TESTING

The material is sampled and tested according to the most recent editions of the Sampling, Testing and Reporting Schedule.

<u>PARAMETER</u>	<u>METHOD NO.</u>
3.1 Burn Test	Burn Test Procedure no. 8 (Tiger Industries)
3.2 Particle size tests	AECI G 01/4A
3.3 Micronutrient Content	Umbog No. 161

This product is manufactured and tested at Chemical Initiatives Umbogintwini Factory.

### Section 6 – USES

Tiger Zinc® is used as a source of plant nutrient sulphur and zinc.

Tiger Zinc® is used for soil amendment for correction of problem alkali soils.

### Section 7 – DOCUMENTATION

This specification is based on information from Tiger- SUL (USA and Canada) and Chemical Initiatives Umbogintwini Factory.

### Section 8 – REASON FOR REVISION

Revision 1 – new document

Revision 2- August 2013 – New template

Revision 3 – November 2013 - Maximum Levels of Potentially Harmful Elements